

November
Project:

Palettes
Remediation
Missouri
Superfund
United States
901 North
Kansas
Kansas

Attn: Ms.

Re: Missouri
Draft Work Plan

Dear Ms.

Thank you for your comments on the draft work plan. I am responding to those comments and shall be sending you a revised work plan.

EPA CC:

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SUPERFUND DIVISION

Missouri Electric Works
Site ID: MOD980965982
Break: 3.5

Missouri Addendum to

work plan for the human
response to those comments
on the draft work plan.

concern (COPC) will be
concentrations should be
December 2002.

final suite of compounds
will be used as toxicity
assessments that have been
be compared with the

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U.S.A., CANADA, U.K. AND WORLDWIDE

NEW SITE FILE
B-1000-D-003

values will not be considered
above their screening values
attention will be given to the
needed and whether the
application for the decision of
presented in the text of the

2.

for the constituents of concern

3. *Exposure*

Appendix of the draft risk

4. *Health effects*

using three slope factors.
a) 1987 original provisional
range (2.0E-02 to 4.0E-01).

5. *Exposure*

and using the three possible
slope factor will be presented

6. *Guidelines*

guidelines referenced in the work
of the inorganic guidelines is
guideline is dated October 1999.

7. *Risk*

referenced in the draft risk

8. *Conclusion*

Lifetime cancer risk for the
child and adult for a resident.

9. *Recommendations*

for the child and adult
risk for a resident living in

10. *References*

associated with potable uses of
radioactive materials by medical workers. The evaluation

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BEST
SHEET
NOV 2000

NEW
SHEET

states "...It is EPA policy to current and future exposures. and restored if necessary and drinking water supply in the

scenario where an off-site located between the site between the site and the pathways associated with algorithms and exposure

The site owners will ensure or future wells on the

constraints, addressing the comment should address the

make the future use of the location, it is feasible that a next to Wilson Road for adopted the residential use

passer scenario. This is

to determine whether the child + 24 yr adult) or that when addressing a justed.

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P-
NEW SITE FILE
6/20/95

*Evaluating the inhalation of
contaminants that migrate indoors
from the creek. The potential size and
migrate into the indoor air may be insignificant to the
occupants.*

assumed.

*use the Supplemental Soil
Screening Levels for*

*Exposure to creek water is included in the draft risk
assessment for a commercial worker
under the proposed draft work plan.*

Screening Levels for

*The primary source for toxicity data is IRIS,
(National Institute for Occupational Safety and Health/ATSDR). While the RAIS
is not the primary source and is not part of*

*the RAIS, Any toxicological data
should be referred to the original source*

*Assumptions: that dermal contact with
creek water is a potential route of exposure.
Incidental ingestion is incomplete.
Assume a person uses creek water under a recreational use
assumption of 100% of the creek water is consumed. Incidental ingestion*

*Assumptions: incidental ingestion of creek
water is a potential route of exposure.
Assume significant due to a high
concentration as point 9, the
creek water is assumed. Incidental ingestion*

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Revised 02/96
MERRIS FILE

concentrations and the use of the develop the exposure point referenced in this section, the sure Point Concentrations at 2002, should be used when

and referenced in the draft

ADORE

**Archie
the dog**

- 100

The concepts appendix

Addition of experts

Technique

Pressure Point Concentrations

ditions to those presented in

on of risk should include a hypothetical domestic user in the south east of the site. Results of the groundwater exposure concentrations, both the inhalation

Plan of risk should include
OWNER.

the pollutant linkages and is

led to allow quantification now.

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Break3_00037

(1)

70y x 365d/y (carcinogens)

To quantify intake from the

(2)

where

L —
C_w —
IR —
ET —
EF —
ED —
BW —
AT —

For the P
consider
m³/mole or

15 NOV 1988

70y x 365d/y (carcinogens)

Chemicals from water is
constant of 1×10^{-5} atm-
ole.

ution from tap water (C_w) is

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Brockport 1988
NEW SITE FILE

(dimensionless) (0.0005,

For ventilation rates based on air changes per hour, certain assumptions for a family of four with an average occupancy rate of each person of 0.65 (U.S. EPA, 2003b) and dishwashers operating once a week.

To maintain a domestic water quality of 100%.

Address:



of 0.0005 is used that is typical for showering, bathing, and dish washing). The infiltration of groundwater into a residence for a family of four is 100 L/s, and the air exchange rate is 0.65 air changes per hour (U.S. EPA, 2003b). The infiltration rate is half of the concentration of COPC in the infiltrated groundwater (0.0005 dimensionless). According to the U.S. EPA, the infiltration rate for toilets to 90% for infiltration is 0.65 air changes per hour.

The infiltration of tap water comes from a conservative assumption of COPC in tap water being 100% of the infiltrated groundwater.

Child Resident
1.1
350
6
15
25,550
2,190

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NEW Site File

Child Trespasser	
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	6,600
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	25,550
	2,190
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Chemical Specific	

NEW SITE FILE
Book3_0000

18 NOVEMBER

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Pathway	Parameter	Adult Resident	Child Resident
Inhalation of vapors from tap water	IR – Inhalation Rate (m ³ /h)	0.83	0.42
	EF – Exposure Frequency (d/y)	350	350
	ED – Exposure Duration (y)	30	6
	ET – Exposure Time, Indoors (h/d)	21	19
	BW – Body Weight (kg)	70	15
	AT – Averaging Time, Carcinogen (d)	25,550	25,550
	AT – Averaging Time, Noncarcinogen (d)	8,760	2,190

Pathway	Parameter	Adult Resident	Child Resident
Incidental Ingestion of creek water	IR – Ingestion Rate (l/d)	0.05	0.05
	EF – Exposure Frequency (d/y)	52	52
	ED – Exposure Duration (y)	30	6
	BW – Body Weight (kg)	70	15
	AT – Averaging Time, Carcinogen (d)	25,550	25,550
	AT – Averaging Time, Noncarcinogen (d)	8,760	2,190

Closure

We trust that this information is suitable for your present requirements. Please contact the undersigned as soon as possible if there are any queries or if any of the methods or parameter values described above are considered unacceptable.

Yours sincerely,

KOMEX

Shawn Roberts, Ph.D.

Hydrogeologist

Simon Firth, M.Sc.

Risk Assessor

cc: distribution list attached

MEW Site File
Break3_a10042

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